



Graduate Research School

UNSW-CSIRO Industry PhD Scholarship

Impact on health from transitioning away from fossil fuels to new alternate energy sources

This project is supervised by UNSW Medicine, CSIRO and the NSW Ministry of Health.

Project description

Air pollution and climate change have considerable impacts on the health of the NSW population. Fossil fuels are the major source of energy in NSW, and the combustion of fossil fuels contribute to both air pollution and climate change. Thus there are potential co-benefits for health from transitioning energy generation away from fossil fuels.

This project will use a range of quantitative modelling approaches including life cycle analysis and health impact assessment to determine the cumulative benefit to health from transitioning over a period of time from fossil fuels to alternative energy technologies. For example, CSIRO is investigating the use of ammonia as a hydrogen carrier for fuel for motor vehicles. There are potential environmental health benefits and detriments associated with this novel alternate energy technology and one of the aims of the project will be to conduct a health impact assessment to quantitatively determine the net health impact.

Scholarship details

The scholarship is **\$40,596** per annum for four years. The Program includes a range of career and professional development opportunities, and a compulsory six month (minimum) industry internship.

The successful candidate must commence their studies in **Term 2 2019**.

Location

The successful candidate will be primarily located at the Ingham Institute for Applied Medical Research, Liverpool Hospital. However, the candidate will also be expected to spend time in the NSW Ministry of Health, North Sydney, and CSIRO, Melbourne.

Eligibility criteria

The program is open to local applicants only (Australian citizens, Australian permanent residents & New Zealand citizens).

All applicants must meet the following entry criteria to the PhD:

- Applicants cannot be enrolled in another PhD
- Applicants are able to meet the UNSW research higher degree programs admission criteria (Honours 1 or equivalent)
- Applicants are able to meet the UNSW English language requirements

The ideal candidate will have a strong cross-disciplinary background, with a solid basis in applied maths, physics or chemistry. A background in engineering or environmental science would be an advantage. Other attributes that the candidate will be required to possess include: strong programming skills, strong organisational skills in both academic and professional careers; independent and creative thinker; consistent history of producing high quality results; excellent communication skills; and potential research leadership skills. Excellent written expression in English is essential.

To apply

Applications should be sent directly to Professor Bin Jalaludin at b.jalaludin@unsw.edu.au by **13 May 2019**. All applications must include the following:

- A copy of all academic transcripts
- Evidence of Australian Citizenship or Permanent Residency
- An up-to-date CV
- A completed [Expression of Interest form](#)

Closing date: 13 May 2019

Further enquiries:

Professor Bin Jalaludin

UNSW Medicine, School of Public Health and Community Medicine